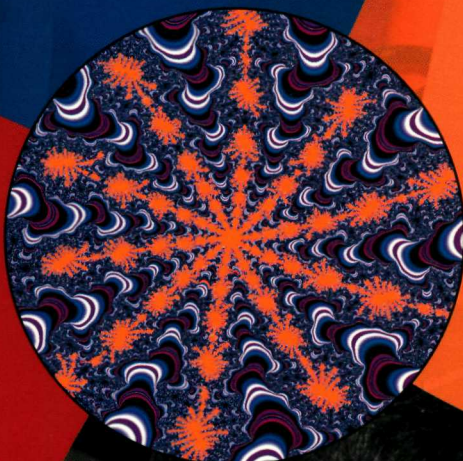


IMSA

Works for Illinois



Illinois Mathematics and Science Academy®
2001-2002 Annual Report

IMSA
KIDS
INSTITUTE
2 Sponsorships
UDORA
DC
3M
Math + Science + Girls
IMSA

IMSA KIDS INSTITUTE

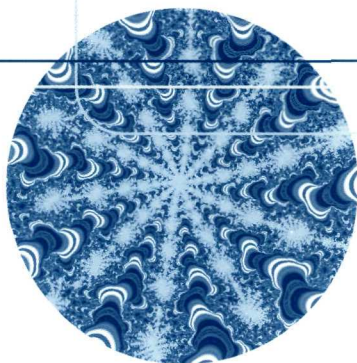
IMSA KIDS INSTITUTE
IMSA KIDS INSTITUTE
IMSA
Math + Science + Girls
Group 3

IMSA KIDS INSTITUTE

IMSA KIDS INSTITUTE

"Within the kaleidoscope, science enables the art to dance."

Stephanie Pace Marshall, Ph.D.



Located in Aurora, Illinois, the Illinois Mathematics and Science Academy is an internationally-recognized pioneering educational institution created by the State to develop talent and stimulate excellence in teaching and learning in mathematics, science and technology. IMSA's advanced residential college preparatory program enrolls 650 academically talented Illinois students in grades 10-12. More than 16,000 teachers and 23,000 students in Illinois and beyond have benefited from IMSA's professional development and enrichment programs. IMSA serves the people of Illinois through innovative instructional programs, public and private partnerships, policy leadership and action research.

IMSA BOARD OF TRUSTEES Winter 2002

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Dear IMSA Shareholders,

This year is one of great challenges and opportunities for the IMSA community. Despite unprecedented budget cuts and staff reductions, our faculty and staff remain deeply committed to the Academy's convictions, mission and legislative charge to improve mathematics and science education for all Illinois children.

IMSA works for Illinois by:

- growing the state's supply of technical and scientific leaders,
- stimulating excellence in mathematics and science teaching,
- improving mathematics and science achievement among students from underserved communities, and
- using technology to offer courses and share resources with schools throughout Illinois.

IMSA initiatives, as detailed in this annual report, advance the goals of The Illinois Commitment as set forth by the Illinois Board of Higher Education.

From Rockford to Chicago, Quincy to Danville and Springfield to Carbondale, IMSA works for Illinois – delivering services that are central to economic development for Illinois and its citizens now and for the future.

In addition to improving mathematics and science education for Illinois' students and teachers, IMSA's "return on investment" is evidenced by the meaningful contributions made by its alumni to the communities and world in which they live. In a letter to a legislator, one wrote:

I was born and raised on a small farm just outside of Lowpoint, which is a left turn away from nowhere 20 minutes outside of Peoria on route 89 between Metamora and Washburn. My mother and father, neither of whom has a college degree, allowed me to leave home and attend the Academy. I graduated (from IMSA), spent two years at the University of Illinois at Chicago (UIC) on a full-ride scholarship then transferred to Cornell University to complete a bachelors in computer science.

Though I still am most definitely well grounded and even somewhat wistful about that place from which I come, I have long since transcended it in a way unknowable to any but those who have done the same. I attribute my opportunity and ability to do so entirely to IMSA.

IMSA is a beacon of hope for gifted individuals from poor, educationally disadvantaged areas. Not all will be admitted nor will all succeed, but for those who recognize its value, it is a gift from the state of Illinois that can never be repaid.

IMSA is an undoubtedly profitable investment in education that has and will show magnificent

returns of novel and successful instructional techniques introduced into the broader Illinois educational system; alumni that, discounting myself, have been shockingly successful over what so far have been extremely short careers, and a community that understands and defends the advancement of mathematics and science education as essential.

The letter was signed by an alum who has successfully founded and sold a technology company.

IMSA is indeed a place that changes the destinies of all those who are willing to work purposefully to reach their dreams. Our alumni continue to make meaningful contributions to our state, nation and world, all of which are just beginning to see the return on investment. The rewards in the future will be immeasurable.

As always, we extend our deepest thanks to you, our shareholders, for your unwavering commitment and support of IMSA's work on behalf of the people of Illinois.

Sincerely,

Sheila MB Griffin
Sheila MB Griffin
Chairman

Stephanie Marshall
Stephanie Pace Marshall, Ph.D.
President

IMSA works for Illinois

In 1985, the Illinois Legislature established the Illinois Mathematics and Science Academy to fulfill two charges: (1) provide a uniquely challenging education for Illinois students talented in mathematics and science, and (2) provide programs and services that stimulate excellence in mathematics and science education in Illinois schools. Since 1985, unprecedented technological advances and demand for technologically skilled workers have grown exponentially and so has the demand for IMSA's services.

IMSA works for Illinois by growing the State's supply of technical and scientific leaders, addressing the State's acute shortage of well-qualified mathematics and science teachers, improving mathematics and science achievement among students from underserved communities and using technology to share courses and resources with schools throughout Illinois. From Chicago to Carbondale – these are the ways IMSA works for Illinois-delivering services that are central to economic growth for Illinois and its citizens.

IMSA Excellence 2000+ Program

Aligned with *The Illinois Commitment* Goal 2:

Join elementary and secondary education to improve teaching and learning at all levels.

Rocketry, Earthquakes and Tectonics, and Chaos Theory are just some of the exciting worlds students throughout Illinois are exploring in IMSA Excellence 2000+.

Launched in 2000 at the request of the Illinois General Assembly, IMSA Excellence 2000+ (E2K+) is an after-school enrichment program for Illinois middle school students who are talented, interested and motivated in mathematics and science. E2K+ places special emphasis on students historically underrepresented and underserved in mathematics and science. In addition, the program provides ongoing professional development for participating Illinois middle school teachers.

Designed to serve students and their teachers for up to three years, E2K+ students attend weekly sessions at their school site beginning in the 6th or 7th grade and continue through their 8th grade year. The program is designed to help students "learn how to learn" and emphasizes logic, mathematical thinking and experimental scientific thinking.

[For the kids] it was something to brag about to be in IMSA [Excellence 2000+]. Looking at IMSA [Excellence 2000+] and how much it has impacted our school, I can't really imagine not having a program like that... After the second year it's so much easier to see how big an impact it's actually had; the excitement that those kids have for math and science, and the carry over into the other classrooms, from a building standpoint.

It's great...to do something for students to help inspire them and help promote their interest in math and science.

Ryan Boike

IMSA Excellence 2000+
Coordinator and Principal
of Central Junior High School
Belleville, Illinois

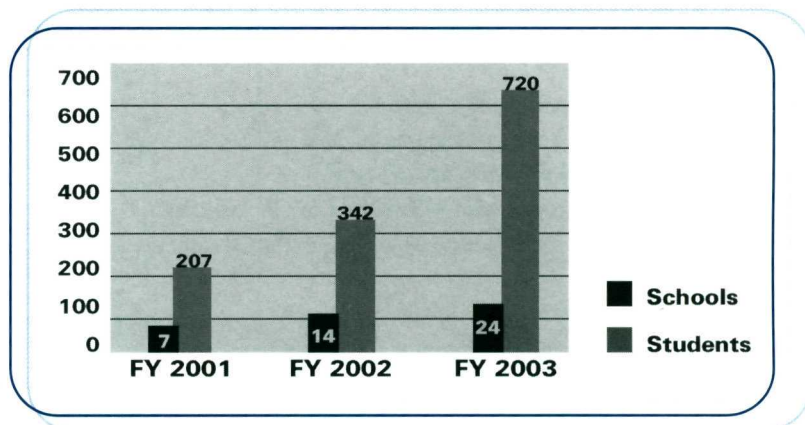


A WIN-WIN FOR ILLINOIS? YES!

A Win-Win for Illinois? YES!

Through the IMSA Excellence 2000+ Program, underserved Illinois 6th-8th graders hone their mathematical and scientific thinking skills while increasing their motivation to learn more!

IMSA Excellence 2000+ Participants 2001-2003



2001-02 IMSA Excellence 2000+ Highlights

- The E2K+ program increased the number of sites served to 14 in 2001-02 including new sites at Chippewa Middle School in Des Plaines, Franklin Middle School in Champaign, Kankakee Junior High School, Marion Junior High School, North Ridge Middle School in Danville, Pasteur Elementary School in Chicago and Quincy Junior High School. Other sites continuing their second year of participation included schools in Chicago, Belleville, Springfield, Hillsboro, Oswego and Rockford.
- More than 300 students were served in the second year of the E2K+ Program.
- Ten new schools will offer the E2K+ program to their students in 2002-03 including those in Bellwood, Chicago, Elgin, Lansing, Maple Park, Plano, West Chicago and Yorkville.
- More than 40 teachers from the sites have participated in the professional development seminar series at IMSA, forging new links with colleagues from around the State.
- New curriculum units were developed for the 6th and 7th grade students including :
 - Math and Science in a New Light
 - Understanding Scale and Proportion—Earth's Place in the Universe
 - Implications of Chaos Theory
 - Shake, Rattle and Roll-Earthquakes and Tectonics
 - Let's Do Launch-Newton's Laws of Motion and Rocketry
- The E2K+ web site www.imsa.edu/center/e2k/ enables participating teachers to share their instructional experience with IMSA professional development specialists and each other.

IMSA works for Illinois

The IMSA Kids Institute® Program

Aligned with *The Illinois Commitment Goal 2:*

Join elementary and secondary education to improve teaching and learning at all levels

Explorations in Science, Math + Science 4 Girls, Project READ, Digital Art and Mars Online are just some of the exciting programs offered by the IMSA Kids Institute (KI)!

Launched in 1998 to stimulate curiosity among young learners throughout Illinois, the Kids Institute continues to grow and evolve, offering *new programs every year*. And, while Illinois' young learners are testing out new KI programs, IMSA students are discovering the joy of teaching.

Guided by faculty, IMSA students create an array of hands-on KI programs that integrate the concepts of science, mathematics and technology. In addition, IMSA students serve as the KI instructors, sharing their love of mathematics and science with younger learners in Illinois.



The Math + Science 4 Girls Camp was a great adventure in which everyone will leave with a deeper interest in stocks, medicine, forensics and astronomy.

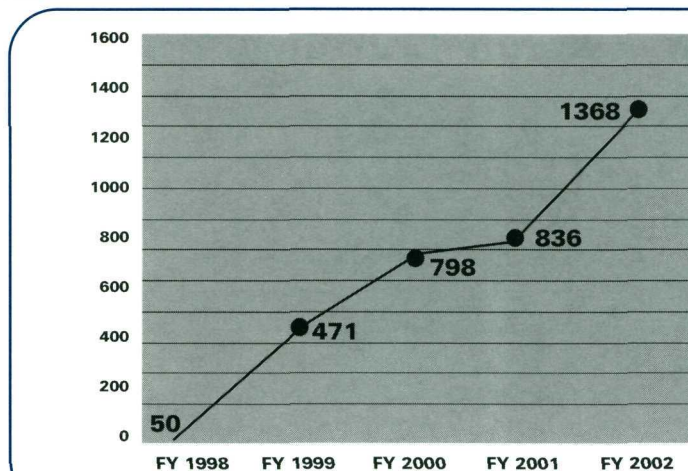
Math + Science 4 Girls Camp participant



A WIN-WIN FOR ILLINOIS? YES!

A Win-Win for Illinois? YES!

Through the IMSA Kids Institute, Illinois' 2nd-8th graders develop problem-solving skills and learn from IMSA's positive young role models that mathematics and science are challenging and fun.



**Kids Institute
Student Participants
1998-2002**

2001-02 Kids Institute Highlights

- Kids Institute programs served more than 1,300 students last summer and during the school year.
- Investing, medicine, forensics, aerodynamics and astronomy were topics at the first KI summer residential camp, *Math + Science 4 Girls*. The new week-long program for 40 middle school girls integrated topics on math, science, and technology and introduced the girls to related careers.
- More than 400 eager young learners beat the winter blues by attending the first IMSA Kids Institute Open House. Bubbleology, spinning tops and origami were just some of the activities students enjoyed on the IMSA campus.
- More than 130 students in grades 2-8 attended a new series of Kids Institute Saturday afternoon workshops. Students chose from topics including Kids Clay Studio, Ecology@IMSA, Architecture Workshop, Inventors' Workshop and Project Read-IN.
- With support from a grant from BP, the IMSA Kids Institute hosted a week-long *Science Explorers* summer camp focusing on energy solutions. Each day of the week, a BP employee led activities on energy conservation techniques.
- Fifty IMSA students tutored 62 students in East Aurora at Johnson Elementary as part of another new program, *Project READ*.
- More than 800 schools in Illinois received a copy of the *Real Science 2001*, an interactive CD-ROM produced by IMSA students for Illinois 3rd-5th grade classrooms. *Real Science* also began testing video streaming of articles from the Kids Institute web site.
- Five East and West Aurora schools participated in a 16-unit *Mars Online* enrichment program during the school year. More than 160 students integrated science, social studies, technology, mathematics, and language arts to address the challenge of sustaining life on Mars. The project culminated with a Mars Fair at IMSA.



IMSA works for Illinois

Having learned how to evaluate an (Internet) site by understanding the domains is a major help. I now save time by immediately discarding the sites that I determine may not have what I am looking for. What a revelation this was for me.

Peggy Field

Librarian
Troy Middle School
Plainfield, Illinois

On-line Learning Program

Aligned with *The Illinois Commitment Goal 2:*

Join elementary and secondary education to improve teaching and learning at all levels

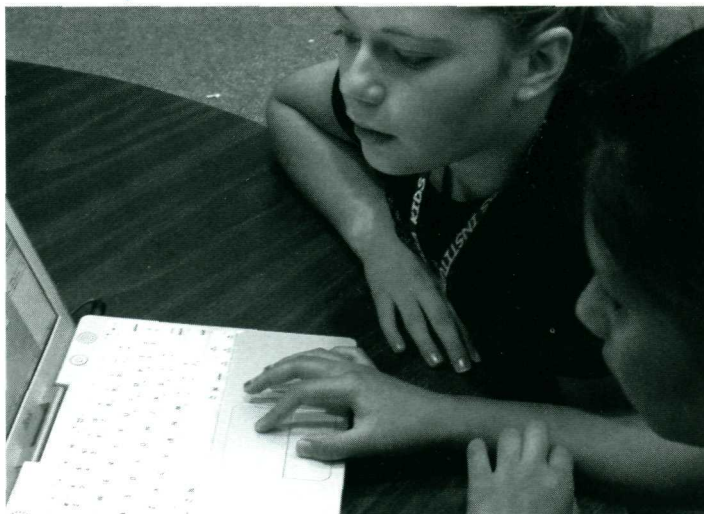
Aligned with *The Illinois Commitment Goal 4:*

Increase number and diversity of citizens completing training and educational programs

The Illinois Virtual High School (IVHS) is fast becoming a household name in classrooms throughout Illinois. In fact, since launching in spring 2001, the IVHS experienced explosive growth (see chart) in both student registrations and Illinois cities served.

The IVHS is an Internet educational service administered by the Illinois State Board of Education (ISBE). IMSA was a founding partner of the IVHS and today, in collaboration with ISBE, provides its strategic and operational leadership. The IVHS is just one example of the "anytime and anyplace" offerings of IMSA's On-line Learning Program.

In addition to the IVHS, IMSA offers a variety of other on-line learning opportunities including professional development in the use of the IMSA Internet Toolkit. Designed by IMSA staff, the Toolkit provides support to teachers, librarians and technology coordinators throughout Illinois, by helping them to more efficiently and effectively navigate the Internet.

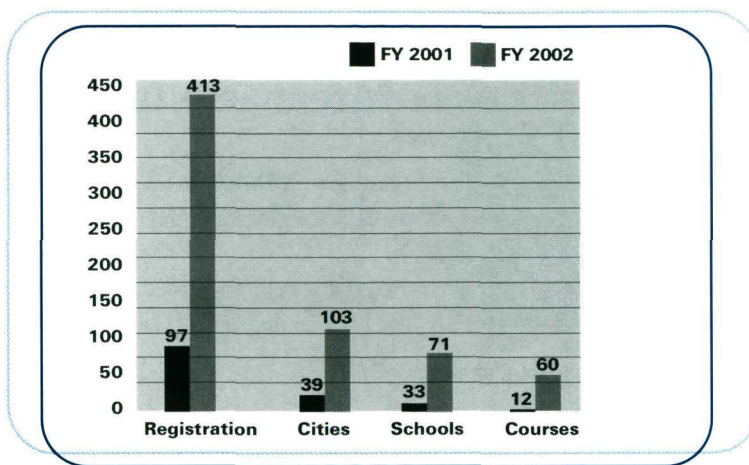


A WIN-WIN FOR ILLINOIS? YES!

A Win-Win for Illinois? YES!

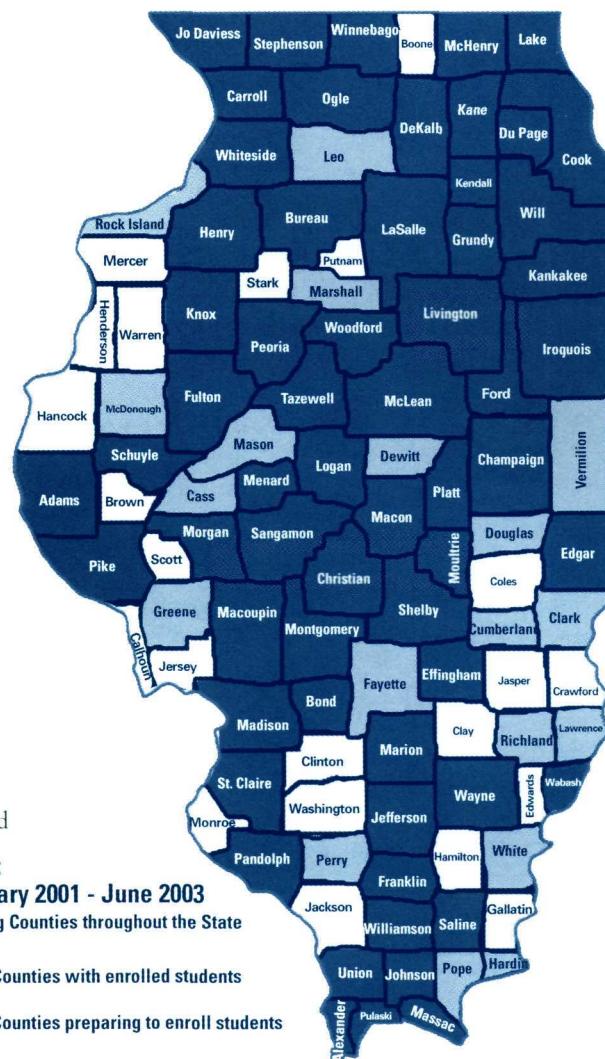
Through the expansion of the IMSA On-line Learning Program, more students and teachers throughout Illinois can participate in IMSA programs and hone their Internet navigational skills to help improve student learning in Illinois' classrooms.

IVHS Growth 2001-2002



2001-02 On-line Learning Highlights

- IMSA Director of Virtual Learning Matthew Wicks served as co-chair of the Illinois Virtual High School (IVHS). In its first year, the IVHS expanded to offer 60 courses (up from 12 in the pilot) to more than 400 students (up from 97 in the pilot) in 103 cities throughout Illinois. In addition, IMSA delivered four semesters of IMSA courses through the IVHS in Assembly Language Programming, Astrophysics and Calculus-Based Physics.
- IMSA created a professional development course for educators in Space Science to be offered via IVHS in the 2003-04 year.
- IMSA hosted a pre-conference workshop on the IMSA Internet Toolkit for the Illinois Computing Educators (ICA) statewide conference.
- IMSA offered a full semester 3-credit online course in Digital Information Literacy.
- IMSA received a grant from the U.S. Department of Education to launch IMSA's 21st Century Information Fluency Program with more than 100 middle and high schools throughout the state. The program builds the capacity of school librarians, teachers and students to locate, evaluate and use Internet information resources productively. School librarians participate in a 12-week online course and use a rich array of web-based learning materials and software tools. Librarians then recruit teachers from their schools to develop lessons that integrate Internet resources into student learning experiences. Participating librarians and teachers become part of an online network that connects them to Illinois colleagues dedicated to online learning and to a rich array of online resources.



IMSA works for Illinois

Illinois International Career Academy

IMSA has succeeded in developing a program which enhances "teacher preparation" in the international domain of the social sciences. Kudos to IMSA staff for a job well done!

Dr. James Osberg
Executive Director,
Illinois Consortium for
International Education

Aligned with *The Illinois Commitment Goal 1:*

Help Illinois businesses and industry sustain strong economic growth

No other state in America can claim to have a program comparable to the Illinois International Career Academy (ICA) and the Illinois International High School initiative!

Launched in 2001, the ICA is administered by IMSA on behalf of the Illinois Board of Higher Education. Through IMSA and the ICA, Illinois has become a national leader in international secondary education programs.

The mission of the ICA is to promote a sense of international citizenship among Illinois' outstanding high school juniors and seniors and to contribute to the economic well-being of the state of Illinois. Through the ICA, students investigate a broad range of economic, political and cultural issues impacting the diverse global economy. The student experience spans three summers and two school years and includes partnerships with Illinois multinational companies and study abroad.



Student Portfolio

Meet Rocío Bahena

philosophy, interests, values and world views

My ICA Experience Institutes, Summits, Lectures, Internship

My Notebook original presentations, papers, articles, artifacts

Language Fluency foreign language proficiency

My References recommendations, academic and professional contacts

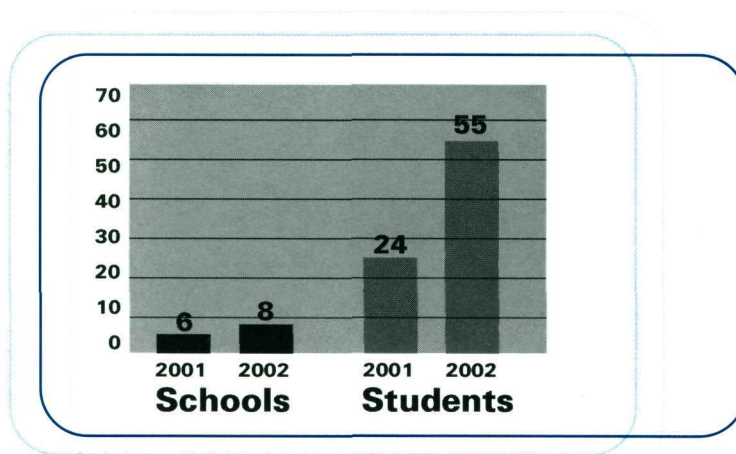
In the summer of 2002, each ICA student began developing an online portfolio. Each portfolio contains information related to his/her ICA experience, which may include text, graphics, animation, audio and video.

A WIN – WIN FOR ILLINOIS? YES!

A Win-Win for Illinois? YES!

IMSA and the Illinois International Career Academy (ICA) prepare students for academic and professional pursuits in international business and help build the workforce the state needs to compete successfully in a global economy.

International Career Academy 2001-2002 Participants



2001-02 Illinois International Career Academy Highlights

- The ICA program expanded to eight high schools for 2001-02 including new sites at Walter Payton College Prep in Chicago and Edwardsville High School. Other sites include schools in Aurora (IMSA), Bloomington, Carbondale, Chicago, Glenview and Urbana.
- Student enrollment in the ICA more than doubled from 24 to 55 students in 2001-02. In addition, 11 teachers participated in the program.
- Students worked with the Illinois Trade Office, RSM International and State Farm on diverse market-related problems that involve opening new markets for Central American trade, regulation of the accounting and consulting industry and research to improve the marketing of financial products.
- Students prepared white papers for the International Career Academy (ICA) Winter Summit: a roundtable discussion of the economic development of Central Asia, tied to current events in Afghanistan.
- For 14 days in July, the participants immersed themselves in the study of key international issues. Topics included Arms Control in Central Asia with special guest Mr. Surendra Kumar (Consul General of India), Israeli settlements in the West Bank, Foreign Aid to Africa and others.
- The ICA launched its interactive web site linking students, teachers and partners. The site at www.imsa.edu/org/ica features program information, news updates, a photo gallery, curriculum samples, links to chat rooms, discussion boards, online tutorials and a calendar of events.
- To assess student, teacher and parent satisfaction, surveys were conducted on engagement, relevance and achievement of program objectives. Overall, 100% of teachers and students reported satisfaction with the program, and 80% of teachers reported that ICA objectives contributed to their curriculum and instruction efforts in their home schools.
- Comments from experts during debriefing sessions indicate that 100% of the students demonstrate excellent knowledge essential to proposing solutions to challenging world problems.

IMSA works for Illinois

Problem-Based Learning Network (PBLN@IMSA)

"As an administrator, my concerns about incorporating content have been put to rest. It is clear to me that a well-planned PBL lesson can not only be designed to address content standards and benchmarks, but that students will have a deeper knowledge and better retention of what they've learned."

Participant in a 2001 PBL workshop

Aligned with *The Illinois Commitment* Goal 2:

Join elementary and secondary education to improve teaching and learning at all levels

Developing an earthquake plan for Jackson County, Illinois, and developing a plan for future transportation that uses alternative fuel sources, are just two examples of the real-world problems students and teachers tackled this year by participating in the Problem-Based Learning Network (PBLN@IMSA).

Launched in 1992, PBLN@IMSA now has a loyal following of educators in Illinois, other states and countries such as Australia, Singapore and Canada (*see maps on page 13*). PBLN@IMSA serves these educators through professional development in regional and summer institutes, symposia, classroom visitations and online support, and an interactive online professional network of colleagues and PBL experts.

Perhaps the power in problem-based learning lies in its flexibility and adaptability. Students of all ages can use problem-based learning to investigate a variety of real-world problems. In their investigation, students gain critical thinking, problem-solving, and collaborative skills as they gather and apply knowledge from multiple disciplines.

A WIN – WIN FOR ILLINOIS? YES!

A Win-Win for Illinois? YES!

Through the Problem-Based Learning Network at IMSA, teachers are enabled to transform teaching and learning for their students in grades K-16 while making meaningful contributions to the communities in which they live.

2001-02 Problem-Based Learning Highlights

- IMSA PBL staff conducted multi-day design workshops for teachers in McLean County in collaboration with Illinois State University, and for teachers in Lee/Ogle Counties in collaboration with their local Regional Office of Education.
- PBLN@IMSA planned and delivered professional development in Problem-Based Learning for IMSA Excellence 2000+ (E2K+) teachers in Illinois beginning their third and final year in the program. Eighth-grade students in the program will solve problems related to their individual communities as part of their curriculum.
- PBLN@IMSA partnered with the International Career Academy (ICA) at IMSA to deliver professional development in Problem-Based Learning to Illinois teachers. The PBL staff also collaborates in the design of the student curriculum in the summer ICA program as well as at the ICA school sites in Illinois throughout the year.
- IMSA delivered one-day workshops in PBL to 140 K-12 educators in Lincoln and Wilmington, Illinois; LaSalle County, Illinois; and Phoenix, Arizona. IMSA PBL staff delivered contractual workshops to 120 teachers in Indiana, Michigan, Ohio and Texas.
- 41 educators from Illinois and beyond attended the 10th annual Neison and Bette Harris Institute for PBL Design; 33 educators from Illinois and beyond attended the 7th annual Summer Sleuths Institute for PBL Coaching and then facilitated PBL learning experiences for 123 Illinois students in grades 7-9 and 51 high school students from Korea.

Bridges to Science Literacy (IMSA 2061) Program

Aligned with *The Illinois Commitment Goal 2:*

Join elementary and secondary education to improve teaching and learning at all levels

The Illinois Mathematics and Science Academy's (IMSA) Bridges to Science Literacy Program responds to the national demand for high standards of knowledge and performance in mathematics, science and technology.

IMSA's Bridges to Science Literacy, a K-12 professional development program, equips educators with the tools needed to use state and national standards to improve student achievement in mathematics and science. This professional development program uses the American Association for the Advancement of Science's (AAAS) Project 2061 tools for mathematics and science educational reform. In addition, it melds the success of Project 2061 with IMSA's experience in research, professional development and the creation of standards-based learning environments.

The IMSA Bridges to Science Literacy Program helps teachers update and deepen their knowledge in the areas of science, mathematics and technology in order to keep these topics interesting and current for their students.



A WIN – WIN FOR ILLINOIS? YES!

A Win-Win for Illinois? YES!

IMSA's Bridges to Science Literacy professional development cohorts are individually designed to support Illinois school districts in their efforts to provide excellent science and mathematics curricula and instruction for their students.

2001-02 Bridges to Science Literacy Highlights:

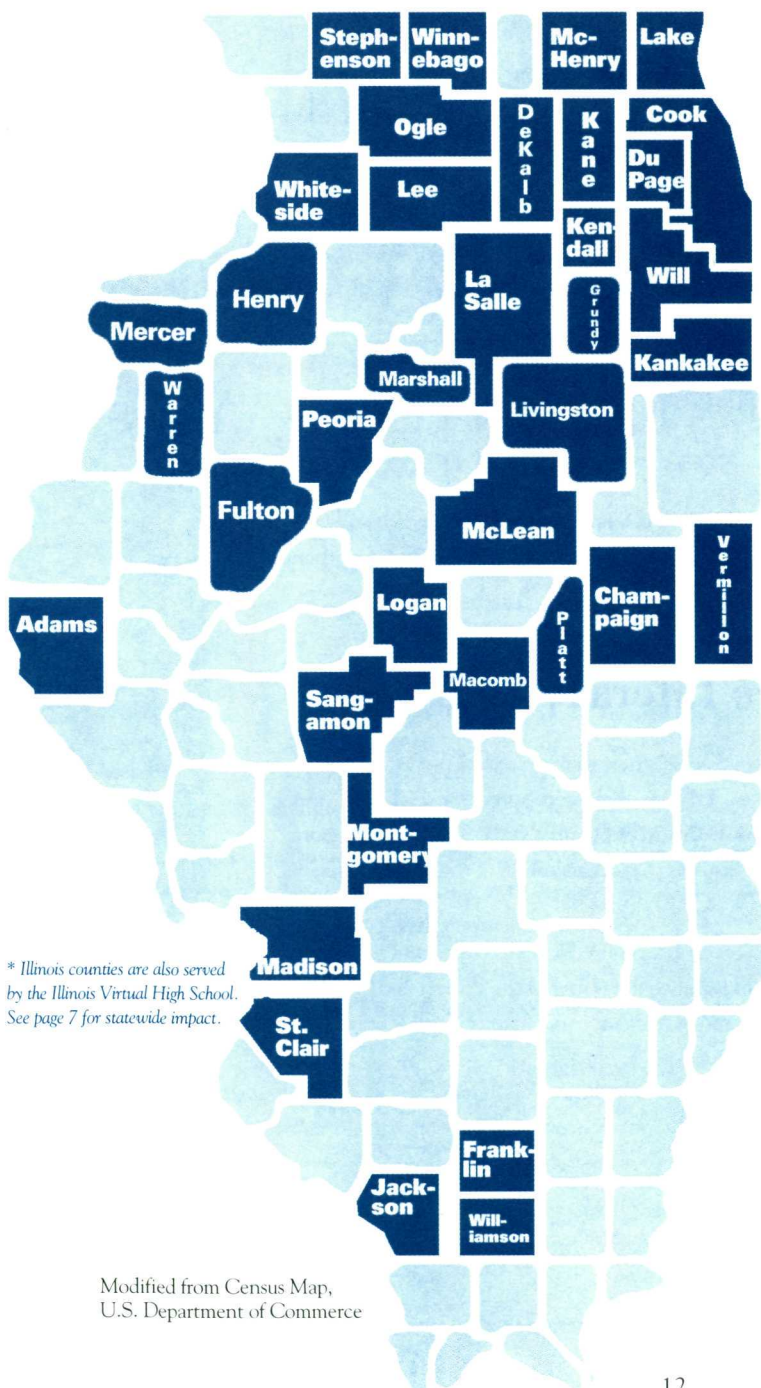
- IMSA staff began work with six Illinois school districts that serve in two-year cohorts for continuing professional development. The first of these cohorts includes Crete Monee C.U.S. D. 201U, which began work with IMSA in September 2001. The second cohort, launched in January 2002, includes five districts that are members of the West Suburban Consortium for Academic Excellence (WSCAE).
- IMSA partnered with area Regional Offices of Education (ROE) to conduct two introductory workshops, designed to help educators experience the power of the Project 2061 tools (*Science for All Americans*, *Benchmarks for Science Literacy* and *Atlas of Science Literacy*) to improve their science curriculum and instruction.
- IMSA conducted a two-day workshop for Quincy Public Schools. As a result, Quincy began a two-year cohort with IMSA in 2002-03.

IMSA Programs work for

From Chicago to Carbondale, students and teachers continued to experience the power of “the IMSA way” in their classrooms in 2001-02.

IMSA is at work in rural, urban and suburban communities throughout Illinois, striving to help improve student interest, motivation and achievement in mathematics and science.

As a testament to the success of IMSA's reach and impact, educators and policymakers from throughout the world seek us out in efforts to transform teaching and learning in their settings. Many of these educators fly thousands of miles to experience firsthand the innovative IMSA environment.



* Illinois counties are also served by the Illinois Virtual High School. See page 7 for statewide impact.

Modified from Census Map,
U.S. Department of Commerce

IMSA Programs Serving Illinois July 1, 2001 – June 30, 2003

21st Century Information Fluency Project

Serving Cook, DuPage, Franklin, Lake, Macon, Madison, McHenry, Ogle, St. Clair, Whiteside and Will counties

Alternative Teacher Certification

Serving Cook, DuPage, Kane, Kankakee, Lake and McHenry Counties

Bridges to Science Literacy

Serving Adams, DuPage, Cook and Will counties

IMSA Excellence 2000+

Serving Adams, Champaign, Cook, DuPage, Kane, Kankakee, Kendall, Montgomery, St. Clair, Sangamon, Vermillion, Williamson and Winnebago counties

IMSA Great Minds Program®

Serving Kane county

International Career Academy

Serving Champaign, Cook, Kane, McLean, Madison and Jackson counties

Internet Toolkit

Serving Cook, DeKalb, DuPage, Kane, Kendall, Lake, Ogle and Stephenson counties

IMSA Kids Institute®

Serving Adams, Cook and Kane counties

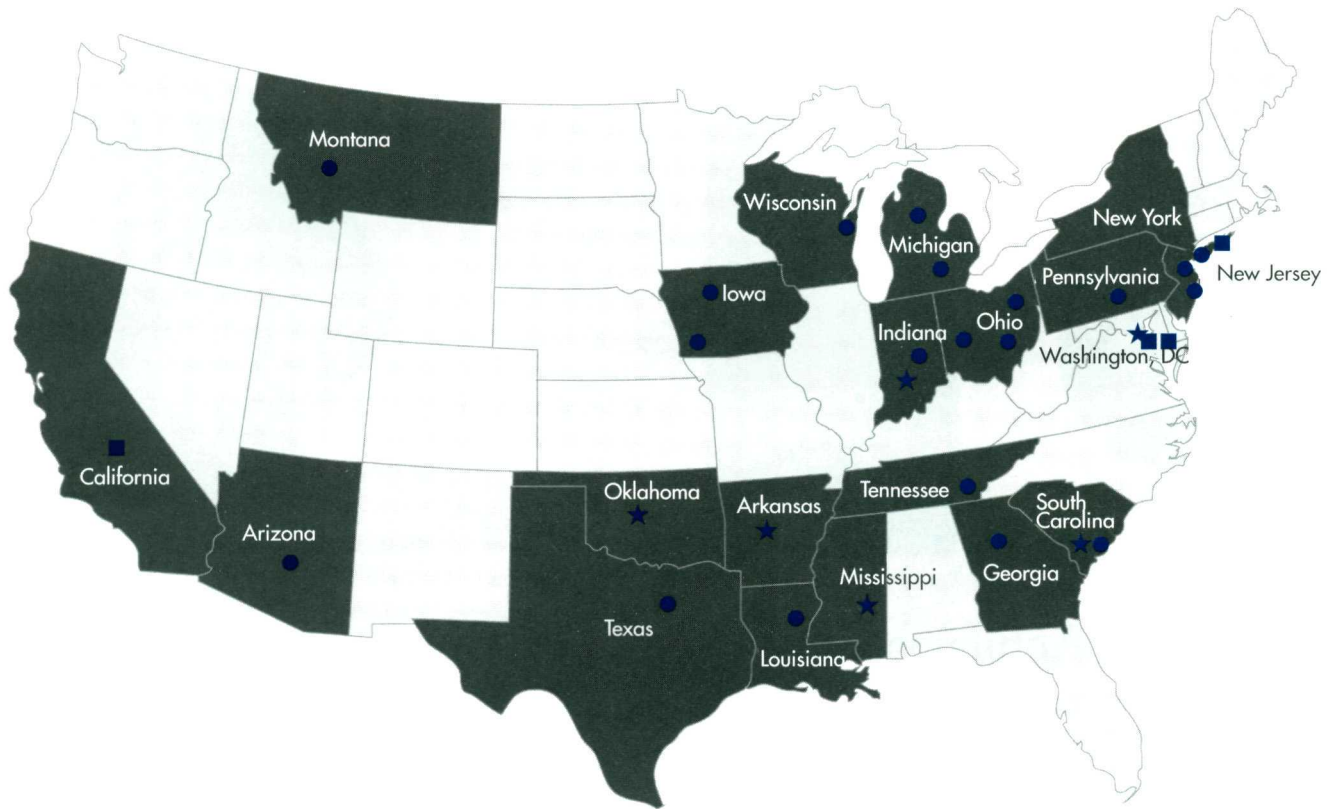
Problem-Based Learning

Serving Cook, Kane, LaSalle, Lee, Logan, McHenry, Peoria and Will counties

STEP-UP to the Future

Serving Kane county

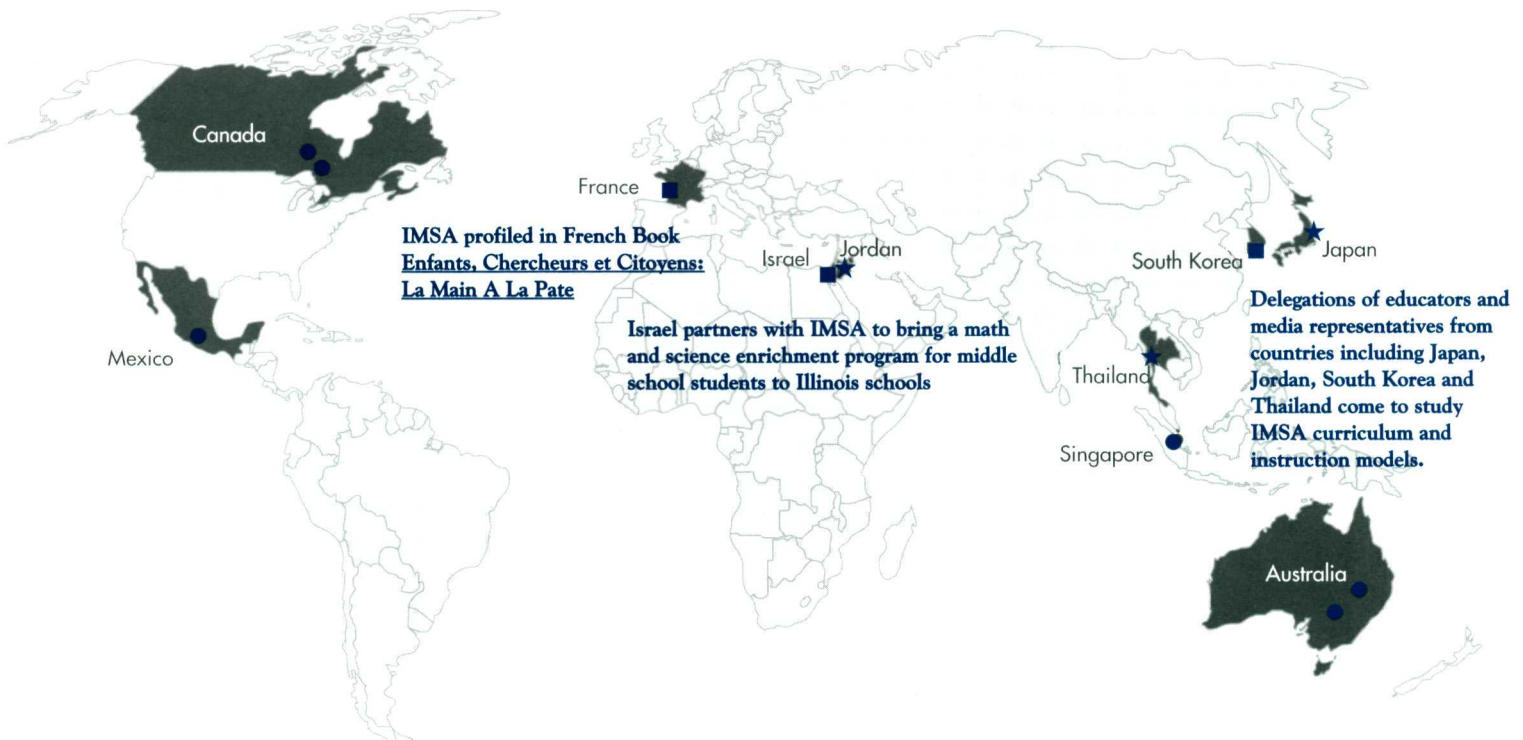
Illinois And Beyond!



● IMSA Professional Development in Problem-Based Learning (PBL)

■ Other Examples of IMSA's Influence

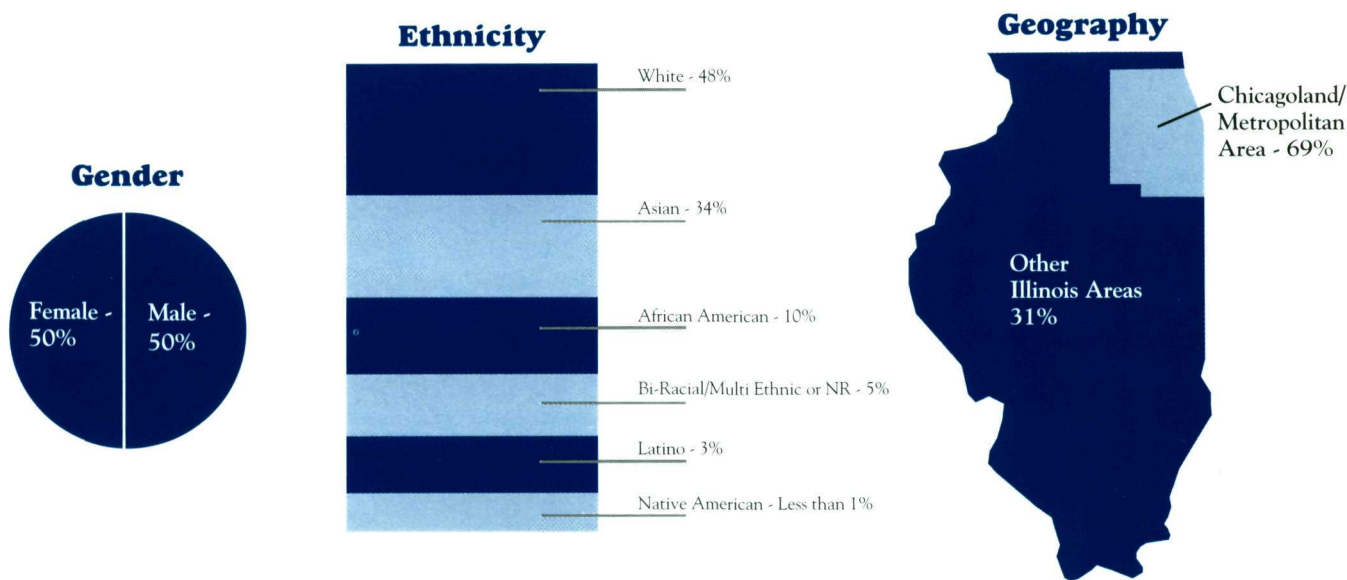
★ IMSA Helps Establish Similar Residential Programs



IMSA

Program Highlights 2001-02

Student Profile



Student Achievements

- **Rabeah Sabri** of Glendale Heights presented her research, *The Role of Neonatal Nurse Practitioners Compared to Residents in the NICU Environment* at the American Pediatric Society- Society for Pediatric Research.
- **Daniel Gulotta** of Naperville was one of 25 students selected to be a member of the 2002 U.S. Physics Team. Six other IMSA students were semifinalists.
- **Kevin Yang** of Naperville was one of 40 national finalists in the Intel Science Talent Search Competition. Yang was one of only five finalists from Illinois. Two other IMSA students were semifinalists.
- Nine IMSA students qualified to take the USA Mathematical Olympiad (USAMO).
- Team members **Bradley Kay** (Aurora), **Kevin Yang** and **Daniel Gulotta** (Naperville) and **Jered Wierzbicki** (Sugar Grove) received the rank of "National Outstanding," in the fourth annual High School Mathematical Contest in Modeling.
- **Paul Malina** of Hickory Hills and **Christopher Young** of Westchester wrote the article *Raise Your Hands for Science* in the May issue of *Learning and Leading with Technology*.
- 14 students won 14 medals in the 20th National Russian Essay Contest.

Testing Highlights

- Mean SAT I composite score for IMSA seniors was 1374, **368 points above** the national average for college-bound seniors.
- Mean ACT composite score for IMSA seniors was 30.1, **9.3 points above** the national average for college-bound seniors.
- Of IMSA juniors and seniors taking the Advanced Placement Examinations, **92%** scored "3" or better and **71%** scored "4" or better. In addition, of the 98 students taking the Calc BC examination, **88%** scored a "5" and **95%** scored a "4" or better.
- Mean SAT II score for IMSA seniors taking the Mathematics-Level IIC Test was 752, **164 points above** the national average for college-bound seniors. Mean IMSA score for the English Writing SAT II Test was 676, **76 points above** the national average for college-bound seniors.

Academic and Residential Program

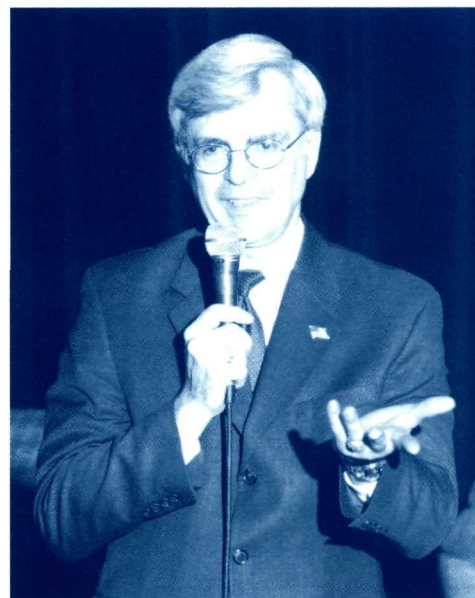
Aligned with *The Illinois Commitment Goal 5:*

Join elementary and secondary education to improve teaching and learning at all levels

- **The Student Inquiry and Research (SIR) Program** challenges students to engage in scholarly and scientific investigation through mentorships and student plans of inquiry; 150 students worked on approved inquiry projects and 137 students worked on approved mentorships at prominent institutions throughout Chicagoland.
- The book, *Portraits of Great American Scientists*, was unveiled at a press conference. The book was written by 14 IMSA students and one student from Batavia High School.
- **The IMSA Great Minds Program®** held a number of seminars for students and staff by expert authorities including Marvin Minsky, founder of MIT's Artificial Intelligence Laboratory; Alfred Berkeley II, vice chairman of the NASDAQ Stock Market; and Admiral William Owens, former vice chairman of the Joint Chiefs of Staff (pictured).
- IMSA's **Student Leadership Development Program** provides students with unique opportunities to become strong ethical leaders in mathematics and science and for IMSA, the community, and the world. Programs were held in partnership with Leaders Today, SBC Ameritech and the National Coalition Building Institute.

Professional Contributions

- President **Dr. Stephanie Pace Marshall** presented *The Report of the National Research Council on Programs of Advanced Study in Math and Science in American High Schools* at the National Conference of the American Academy of the Advancement of Science.
- Seven faculty members received National Board of Professional Teaching Standards (NBPTS) Certification, the largest number for a single site in Illinois.
- **Laura Nickerson** (IMSA '92) was one of only 16 physics teachers nationwide selected as a new participant in the Physics Teaching Resource Agent (PTRA) program. **Branson Lawrence** was elected president of the Illinois Association of Chemistry Teachers.
- **Dr. Steven Condie** was one of 24 high school teachers in the U.S. and Canada to receive the Edyth May Sliffe Award for Distinguished High School Mathematics Teaching. **Dr. Janice Krouse** was one of 14 high school mathematics teachers selected from 46 states to participate in a content validation study for the NBPTS.
- Technology staff **James Gerry** and **Christopher Kolar**, science teacher **John Thompson**, and student **Jessica D'Souza** of Chicago presented *The Use of PDAs for Field Data Collection* at the Illinois Technology Conference for Educators.
- **Dr. Lee Eysturliid** presented *German-American Relations in Cincinnati and the Election Riots of 1855* at the 26th Annual Society for German-American Studies Conference. **Barbara Baber** presented *IMSA Wellness—An Integrative Approach to Health and Physical Education* at the Illinois Association of Health, Physical Education, Recreation and Dance State Convention.
- **Dr. Steven Rogg** served on a grant proposal merit review panel for the National Science Foundation's Division of Elementary, Secondary and Informal Education.
- Staff members **Bob Hernandez**, **Keith McIntosh**, and **Britta McKenna** and students **Sandra Garcia** of Berwyn, and **Joyce Pulphus** of Chicago gave the keynote address at a workshop for Illinois P-16 service learning educators.



IMSA Great Minds Program®
speaker Admiral William Owens

IMSA works for Illinois

IMSA Alumni: Where Are They Now?

Aligned with *The Illinois Commitment Goal 1*:

Help Illinois businesses and industry sustain strong economic growth

IMSA alumni are making their mark on the world in significant and meaningful ways. Their remarkable achievements and contributions in 2001-02 speak to the value of an IMSA education. Their professional contributions are evidence of IMSA's focus on students' development as ethical learners and leaders, and highly skilled inquirers and researchers. Lessons learned here are carried with them throughout their lives, thereby touching the lives of others.

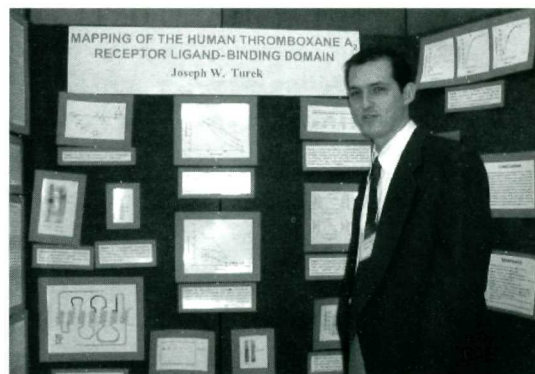
A WIN-WIN FOR ILLINOIS? YES!

A Win-Win for Illinois? YES!

IMSA alumni, many of whom are just beginning their careers, are already making significant research contributions in numerous fields. Outside of the laboratories, IMSA alumni are fulfilling public service roles in the fight against many of the world's plights including HIV/AIDS.

2001-02 Highlights of IMSA Alumni Achievements and Contributions

- **Rena Patel** of Oak Forest, IMSA Class of 1999, won a prestigious \$30,000 Truman Scholarship for public service. Patel, a student at the University of Illinois-Chicago Honors College, was awarded the scholarship for her strong leadership, commitment to public service and her academic excellence. Patel, a pre-med, history major, has spent her college summers traveling to India and Tanzania to teach HIV/AIDS education. Patel also was named as one of the Top 10 College Women in America for 2002 by Glamour magazine.
- **Andrea Holmes** of Edgmont, IMSA Class of 1990, works on the Human Genome Project at Washington University in St. Louis. She graduated with a BS in Biology and BA in Spanish from Washington University in 1994 as an Ervin Scholar. Her current work includes organizing information on the genome before it is sent to the public database. Holmes credits IMSA for her interest in research. "My IMSA Mentorship at Northern Illinois University is why I'm in research now."
- **Lyn Miller Wancket** of Springfield, IMSA Class of 1999, was one of only 102 students admitted to the 2002-03 first-year class of the University of Illinois College of Veterinary Medicine in Urbana. Admission to the college, one of only 28 veterinary schools in the nation, is highly competitive.
- **Dr. Ronjon Paul** of Oak Brook, IMSA Class of 1989, received first place in the Orthopaedic Research and Education Foundation's 5th Annual Midwest Resident Research Competition and Symposium, hosted by the University of Illinois-Chicago Department of Orthopaedics. Dr. Paul, a fifth-year resident from the University of Chicago, received first place for his paper, Potential Use of SOX-9 Gene Therapy for Intervertebral Degenerative Disc Disease.
- **Mary Sullivan** of Marengo, IMSA Class of 2001, was selected by NASA to conduct research experiments at the Johnson Space Center in Houston, Texas, as a member of the Drexel SpaceDragons Microgravity team. During the ride aboard NASA's KC-135 "Vomit Comet" airplane, Sullivan studied the pollutant properties of diesel and Biodiesel fuel. Sullivan is a freshman majoring in chemical engineering.



Dr. Joseph Turek of Petersburg, IMSA Class of 1990, is pursuing five years of general surgery and two years of adult heart surgery at the University of Illinois at Chicago to become a pediatric surgeon, specializing in repairing newborns' hearts. He was awarded an MD as well as a PhD in pharmacology, from UIC in 2001.

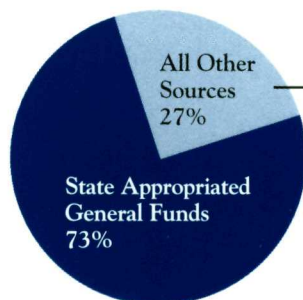
Investments Fiscal Year 2002

To support and expand the Academy's research, innovative teaching and external service programs/initiatives, the Illinois General Assembly appropriated an operating budget of \$16.5 million in 2001-02. The State appropriations were restricted by the Governor in the amount of \$.2 million during the year due to revenue shortfalls. IMSA and the IMSA Fund for Advancement of Education work to secure the support and participation of various constituencies including individuals, corporations, foundations, educational institutions and governmental agencies to advance the Academy's mission. In 2001-02, \$6.0 million in supplemental funding (gifts, grants and pledges) was raised.

Major capital projects during 2001-02 included re-roofing of a portion of the academic building, and capital planning for renovations of the East gym and the B-wing science laboratories (an *Illinois First* initiative).

IMSA parents paid a \$950 fee in 2001-02 to offset some of the costs of cocurricular programs and residential services.

Sources of Operating Resources

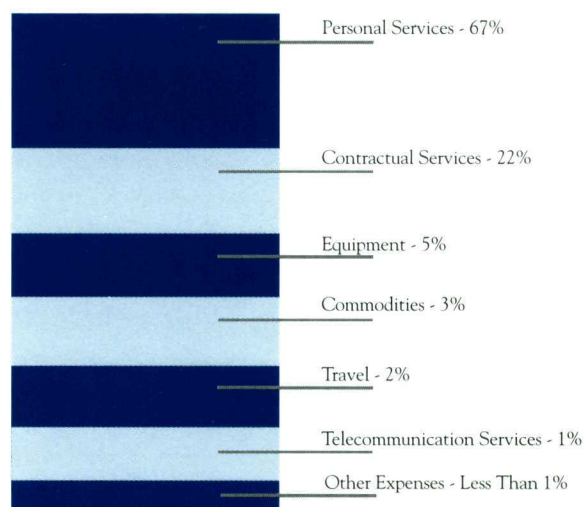


Locally Generated - "IMSA Income Fund" - 3%
Locally Generated - "IMSA Local Fund" - 2%
Private Grants and Contracts - 2%
Governmental Grants and Contracts - 20%

Total Operating Resources

\$22,362,587

Expenditures



To receive a copy of the 2001-02 IMSA Fund Annual Report, contact the Office of Advancement at (630) 907-5040.

Donors

Major donors of \$100,000 or more to the IMSA Fund in 2001-02 included Andrew Corporation/Aileen S. Andrew Foundation, Michael and Katherine Birck, The Chicago Community Trust, Pritzker Foundation and Ball Foundation. The total number of donors increased from 546 in 2000-01 to 865 in 2001-02.

IMSA Annual Report Credits

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Our Vision for Illinois

To create a learning enterprise that liberates the genius and goodness of all children and invites and inspires the power and creativity of the human spirit for the world.

Our Mission

The mission of the Illinois Mathematics and Science Academy, a pioneering educational community, is to transform mathematics and science teaching and learning by developing ethical leaders who know the joy of discovering and forging connections within and among mathematics, science, the arts, and the humanities by means of an exemplary laboratory environment characterized by research, innovative teaching, and service.



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